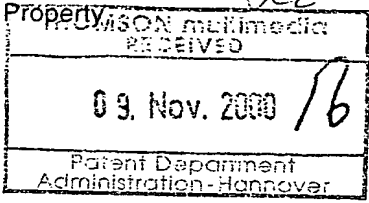


From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:	
Rossmanith, Manfred DEUTSCHE THOMSON-BRANDT GMBH Licensing & Intellectual Property Karl-Wiechert-Allee 74 D-30625 Hannover ALLEMAGNE	
	

PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

Applicant's or agent's file reference PD980061 ✓		<b>IMPORTANT NOTIFICATION</b>	
International application No. PCT/EP99/06478	International filing date (day/month/year) 03/09/1999	Priority date (day/month/year) 10/09/1998	
Applicant DEUTSCHE THOMSON-BRANDT GMBH et al.			

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.


**4. REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

RCA PD980061  
CITED BY APPLICANT

Name and mailing address of the IPEA/   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  SCHALINATUS, D  Tel. +49 89 2399-8242
--	---



# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference PD980061	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP99/06478	International filing date (day/month/year) 03/09/1999	Priority date (day/month/year) 10/09/1998
International Patent Classification (IPC) or national classification and IPC H04N5/50		
Applicant DEUTSCHE THOMSON-BRANDT GMBH et al.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.
  - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 16/03/2000	Date of completion of this report 08.11.2000
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Chandler, W  Telephone No. +49 89 2399 2235 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/06478

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-13 as originally filed

**Claims, No.:**

1-20 as received on 28/07/2000 with letter of 27/07/2000

**Drawings, sheets:**

1,2 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/06478

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims 2-4, 6, 7, 13, 14, 18-19
	No:	Claims 1, 5, 8-12, 15-17, 20
Inventive step (IS)	Yes:	Claims
	No:	Claims 2-4, 6, 7, 13, 14, 18-19
Industrial applicability (IA)	Yes:	Claims
	No:	Claims 1-20

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Concerning point V of the report:**

1. The following document is cited in this report:  
  
D1: WO 98 21877 A (Hyundai Electronics America) 22 May 1998  
D2: DE 44 17 634 A (Gold Star Co.) 24 November 1994  
D3: US-A-5 323 240 (Amano Toshio et al) 21 June 1994  
D4: PAJ vol. 1998, no. 11, 30 September 1998 & JP 10 164447 A (Matsushita Electric Ind Co Ltd), 19 June 1998
2. The application concerns the problem of determining, and displaying channels of interest in a television apparatus. In particular, the applicant states that the application concerns the problem of returning to the "channel of interest" after "zapping", which is jumping from one program to the next. Conventional TV sets often provide a last station key to switch back to the previously selected channel. However, after zapping this channel may not be the same as the "channel of interest". The alleged invention solves the problem by storing a program as the "channel of interest" if the reception of a channel exceeds a predetermined time interval. The user can thus return easily to the "channel of interest".
3. However, the steps of claim 1 are not considered to define the above idea sufficiently to delimit it from the prior art. Thus, although D1 is primarily concerned with creating a television user profile, it discloses at page 6, lines 12 to 34, determining if the reception of a channel exceeds a predetermined time interval. The passage at page 5, line 29 discloses that the viewer profile is stored. Thus claim 1 differs from D1 only in that the stored channel is referred to as a "channel of interest", whereas in D1 it is called a "preferred" channel. Since a preferred channel must be a "channel of interest" by definition, this is not a real difference.
4. Documents D2 (abstract, lines 2 to 6), D3 (column 1, lines 51 to 56) and D4 (abstract, lines 5 to 7) are considered to be equally relevant for the same reasons.
5. Claim 1 is not therefore considered to be new.
6. The applicant considers that D1 (or any of the prior art methods) would store the

channel with the longest viewing time as the "channel of interest". However, D1 is considered to store all the channels with a viewing time longer than the predetermined interval as "preferred channels". As stated above, this is considered to fall under the present claim. The applicant argues if the reception time of the present channel exceeds the interval, the method of the invention replaces the old channel of interest by the present channel. However, firstly it is pointed out that the characterising part of the claim stores "a" channel of interest, rather than "the" channel, thus not delimitating over D1. Moreover, storing just one channel of interest would be an obvious special case of D1. The applicant also argues that D1 sorts the channels with respect to total reception time, which is not the case in the invention. However, this argument, besides relating to a "negative" feature that is not claimed, appears to be wrong because claim 11 of the application contains the feature of storing the channels "on the basis of reception duration" which appears to cover sorting.

7. It appears that in order to correspond to the applicant's idea of the invention, claim 1 requires details relating to the steps of recalling and using the "channel of interest", at least. However, these details are not in any of the claims on file.
8. The methods of determining the reception duration given in claims 2 to 4 are considered to be obvious matters of design and accordingly not to add anything inventive.
9. D1 discloses using a variable time interval, so that claim 5 is not considered to be new. The different time intervals in claims 6 and 7 are considered to follow as obvious possibilities and therefore not to add anything inventive.
10. The various possibilities for storing the channels of interest in claims 8 to 12 are considered to be disclosed in D1 and therefore not to add anything new. Those in claims 13 and 14 are considered to be obvious matters of design and therefore not to add anything inventive.
11. The channel identifiers labelled with reference sign 506 in Figure of D1 are considered to fall under the definition of the "video information" and "pictures" in claims 15 to 17, so that these claims are not considered to add anything new.

12. The generally known features of using voice input and using "channel-specific data" in claims 18 and 19 are not considered to add anything inventive.
13. The idea of defining a channel as being not of interest if the reception duration is too low as in claim 20 is not considered to be new essentially for the reasons given in connection with claim 1. In D1, if the reception duration is below the predetermined time, it is not stored and is by definition "not of interest". The applicant argues that the feature enables automatic skipping to the next channel during zapping if a "not interesting program" is found. However, even if this were correctly claimed, it would appear to be another invention and the question of unity would arise.

**Concerning point VII of the report:**

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor are these documents identified therein.
2. A document reflecting the prior art described on page 1 is not identified in the description (Rule 5.1(a)(ii) PCT).
3. The independent claims are not considered to be in the correct two-part form, in accordance with Rule 6.3(b) PCT. As mentioned above, the prior art discloses determining when the reception duration exceeds a predetermined time interval and then storing the channel.

**Concerning point VIII of the report:**

1. Claim 20 defines the condition "as soon as the reception duration falls below a predetermined time". This is not considered to be clear because the expression "as soon as" implies a forward progression of time for which the expression "falls below" makes no sense.

PCT/EP99/06478  
PD980061\*Hi

Hannover, 27.07.2000

14

### Claims

1. Method for storage of a channel in a consumer electronics appliance which can be switched over between different channels, wherein the reception duration of the current channel is determined, characterized in that, as soon as the reception duration exceeds a predetermined time interval ZE, the channel is stored as a channel of interest.
2. Method according to Claim 1, characterized in that the reception duration of the current channel is determined permanently.
3. Method according to Claim 1, characterized in that the reception duration of the current channel is determined only until the time interval is reached.
4. Method according to Claim 1, characterized in that the reception duration is determined on switching over from the current channel to a further channel.
5. Method according to Claim 1, characterized in that the time interval is set by the manufacturer and/or the user.
6. Method according to Claim 1, characterized in that various time intervals are set.
7. Method according to Claim 6, characterized in that a first short time interval, a second medium time interval and a third long time interval are provided, in order in this way to determine channels of differing interest.
8. Method according to Claim 1, characterized in that the reception duration of the current channel is



PCT/EP99/06478  
PD980061\*Hi

Hannover, 27.07.2000

15

determined, and in that, on switching over from the current channel to a further channel, the reception duration of the further channel is determined, and in that the channel having the longest reception duration is stored as the time interval.

9. Method according to Claim 1, characterized in that all the channels which exceed the time interval are stored as channels of interest.

10. Method according to Claim 9, characterized in that a time indication and/or the respective reception duration are/is also stored for all channels of interest.

11. Method according to Claim 10, characterized in that the data are stored and/or called chronologically and/or on the basis of the reception duration.

12. Method according to Claim 1, characterized in that a changeover to the channel of interest is made by operating a control element.

13. Method according to Claim 1, characterized in that a changeover to the last but one channel of interest is made by operating the control element once again.

14. Method according to Claims 7 and 9, characterized in that a plurality of control elements are provided for different channels of interest.

15. Method according to Claim 1, characterized in that a picture relating to the channels of interest is also stored as video information in a frame memory.

16. Method according to Claim 15, characterized in that, when the control element is operated, the video

PCT/EP99/06478  
PD980061\*Hi

Hannover, 27.07.2000

16

information and/or the channel information are/is also overlaid.

17. Method according to Claim 15, characterized in  
5 that a plurality of pictures are displayed on the screen  
by operating a control element, and can be selected via a  
control element.

18. Method according to Claim 1, characterized in  
10 that the channel of interest is called up by voice input.

19. Method according to Claim 1, characterized in  
that channel-specific data such as a channel name and/or  
transmitter frequency and/or channel details and/or  
15 ShowView data and/or teletext information are also  
stored.

20. Method for determining a channel in a consumer  
electronics appliance which can be switched over between  
20 different channels, wherein the reception duration of the  
current channel is determined, characterized in that, as  
soon as the reception duration falls below a  
predetermined time interval, the channel is defined as a  
channel which is not of interest.

25

# Claims

1. Method for storage of a channel in a consumer electronics appliance which can be switched over between  
5 different channels, characterized in that the reception duration of the current channel is determined, and in that, as soon as the reception duration exceeds a predetermined time interval ZE, the channel is stored as a channel of interest.
- 10 2. Method according to Claim 1, characterized in that the reception duration of the current channel is determined permanently.
- 15 3. Method according to Claim 1, characterized in that the reception duration of the current channel is determined only until the time interval is reached.
- 20 4. Method according to Claim 1, characterized in that the reception duration is determined on switching over from the current channel to a further channel.
- 25 5. Method according to Claim 1, characterized in that the time interval is set by the manufacturer and/or the user.
- 30 6. Method according to Claim 1, characterized in that various time intervals are set.
- 35 7. Method according to Claim 6, characterized in that a first short time interval, a second medium time interval and a third long time interval are provided, in order in this way to determine channels of differing interest.
8. Method according to Claim 1, characterized in that the reception duration of the current channel is determined, and in that, on switching over from the

current channel to a further channel, the reception duration of the further channel is determined, and in that the channel having the longest reception duration is stored as the time interval.

5

9. Method according to Claim 1, characterized in that all the channels which exceed the time interval are stored as channels of interest.

10 10. Method according to Claim 9, characterized in that a time indication and/or the respective reception duration are/is also stored for all channels of interest.

11. Method according to Claim 10, characterized in  
15 that the data are stored and/or called chronologically and/or on the basis of the reception duration.

12. Method according to Claim 1, characterized in that a changeover to the channel of interest is made by  
20 operating a control element.

13. Method according to Claim 1, characterized in that a changeover to the last but one channel of interest is made by operating the control element once again.

25

14. Method according to Claims 7 and 9, characterized in that a plurality of control elements are provided for different channels of interest.

30 15. Method according to Claim 1, characterized in that a picture relating to the channels of interest is also stored as video information in a frame memory.

16. Method according to Claim 15, characterized in  
35 that, when the control element is operated, the video information and/or the channel information are/is also overlaid.

17. Method according to Claim 15, characterized in that a plurality of pictures are displayed on the screen by operating a control element, and can be selected via a control element.

5

18. Method according to Claim 1, characterized in that the channel of interest is called up by voice input.

19. Method according to Claim 1, characterized in that channel-specific data such as a channel name and/or transmitter frequency and/or channel details and/or ShowView data and/or teletext information are also stored.

20. Method for determining a channel in a consumer electronics appliance which can be switched over between different channels, characterized in that the reception duration of the current channel is determined, and in that, as soon as the reception duration falls below a predetermined time interval, the channel is defined as a channel which is not of interest.

21. Circuit for a method for determining a channel of interest in a consumer electronics appliance having a control unit, having a memory, having a programme signal and having control elements, characterized in that, when the control elements (BE, IR) are used for switching over, the control unit (SE) detects the reception duration, for how long the respective channel was activated, and, as soon as the reception duration falls below a previously set time interval, stores this channel as a channel of interest in the memory (SP).

## PATENT COOPERATION TREATY

## PCT

REC'D 10 NOV 2000

WIPO

PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT



(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PD980061	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP99/06478	International filing date (day/month/year) 03/09/1999	Priority date (day/month/year) 10/09/1998
International Patent Classification (IPC) or national classification and IPC H04N5/50		
Applicant DEUTSCHE THOMSON-BRANDT GMBH et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.  
  
☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
  
These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  16/03/2000	Date of completion of this report  08.11.2000
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Chandler, W  Telephone No. +49 89 2399 2235  

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/06478

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-13 as originally filed

**Claims, No.:**

1-20 as received on 28/07/2000 with letter of 27/07/2000

**Drawings, sheets:**

1,2 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP99/06478

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Yes:	Claims 2-4, 6, 7, 13, 14, 18-19
	No:	Claims 1, 5, 8-12, 15-17, 20
Inventive step (IS)	Yes:	Claims
	No:	Claims 2-4, 6, 7, 13, 14, 18-19
Industrial applicability (IA)	Yes:	Claims
	No:	Claims 1-20

### 2. Citations and explanations

**see separate sheet**

## VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**



**Concerning point V of the report:**

1. The following document is cited in this report:

D1: WO 98 21877 A (Hyundai Electronics America) 22 May 1998

D2: DE 44 17 634 A (Gold Star Co.) 24 November 1994

D3: US-A-5 323 240 (Amano Toshio et al) 21 June 1994

D4: PAJ vol. 1998, no. 11, 30 September 1998 & JP 10 164447 A (Matsushita Electric Ind Co Ltd), 19 June 1998

2. The application concerns the problem of determining, and displaying channels of interest in a television apparatus. In particular, the applicant states that the application concerns the problem of returning to the "channel of interest" after "zapping", which is jumping from one program to the next. Conventional TV sets often provide a last station key to switch back to the previously selected channel. However, after zapping this channel may not be the same as the "channel of interest". The alleged invention solves the problem by storing a program as the "channel of interest" if the reception of a channel exceeds a predetermined time interval. The user can thus return easily to the "channel of interest".
3. However, the steps of claim 1 are not considered to define the above idea sufficiently to delimit it from the prior art. Thus, although D1 is primarily concerned with creating a television user profile, it discloses at page 6, lines 12 to 34, determining if the reception of a channel exceeds a predetermined time interval. The passage at page 5, line 29 discloses that the viewer profile is stored. Thus claim 1 differs from D1 only in that the stored channel is referred to as a "channel of interest", whereas in D1 it is called a "preferred" channel. Since a preferred channel must be a "channel of interest" by definition, this is not a real difference.
4. Documents D2 (abstract, lines 2 to 6), D3 (column 1, lines 51 to 56) and D4 (abstract, lines 5 to 7) are considered to be equally relevant for the same reasons.
5. Claim 1 is not therefore considered to be new.
6. The applicant considers that D1 (or any of the prior art methods) would store the

channel with the longest viewing time as the "channel of interest". However, D1 is considered to store all the channels with a viewing time longer than the predetermined interval as "preferred channels". As stated above, this is considered to fall under the present claim. The applicant argues if the reception time of the present channel exceeds the interval, the method of the invention replaces the old channel of interest by the present channel. However, firstly it is pointed out that the characterising part of the claim stores "a" channel of interest, rather than "the" channel, thus not delimitating over D1. Moreover, storing just one channel of interest would be an obvious special case of D1. The applicant also argues that D1 sorts the channels with respect to total reception time, which is not the case in the invention. However, this argument, besides relating to a "negative" feature that is not claimed, appears to be wrong because claim 11 of the application contains the feature of storing the channels "on the basis of reception duration" which appears to cover sorting.

7. It appears that in order to correspond to the applicant's idea of the invention, claim 1 requires details relating to the steps of recalling and using the "channel of interest", at least. However, these details are not in any of the claims on file.
8. The methods of determining the reception duration given in claims 2 to 4 are considered to be obvious matters of design and accordingly not to add anything inventive.
9. D1 discloses using a variable time interval, so that claim 5 is not considered to be new. The different time intervals in claims 6 and 7 are considered to follow as obvious possibilities and therefore not to add anything inventive.
10. The various possibilities for storing the channels of interest in claims 8 to 12 are considered to be disclosed in D1 and therefore not to add anything new. Those in claims 13 and 14 are considered to be obvious matters of design and therefore not to add anything inventive.
11. The channel identifiers labelled with reference sign 506 in Figure of D1 are considered to fall under the definition of the "video information" and "pictures" in claims 15 to 17, so that these claims are not considered to add anything new.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/EP99/06478

12. The generally known features of using voice input and using "channel-specific data" in claims 18 and 19 are not considered to add anything inventive.
13. The idea of defining a channel as being not of interest if the reception duration is too low as in claim 20 is not considered to be new essentially for the reasons given in connection with claim 1. In D1, if the reception duration is below the predetermined time, it is not stored and is by definition "not of interest". The applicant argues that the feature enables automatic skipping to the next channel during zapping if a "not interesting program" is found. However, even if this were correctly claimed, it would appear to be another invention and the question of unity would arise.

**Concerning point VII of the report:**

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor are these documents identified therein.
2. A document reflecting the prior art described on page 1 is not identified in the description (Rule 5.1(a)(ii) PCT).
3. The independent claims are not considered to be in the correct two-part form, in accordance with Rule 6.3(b) PCT. As mentioned above, the prior art discloses determining when the reception duration exceeds a predetermined time interval and then storing the channel.

**Concerning point VIII of the report:**

1. Claim 20 defines the condition "as soon as the reception duration falls below a predetermined time". This is not considered to be clear because the expression "as soon as" implies a forward progression of time for which the expression "falls below" makes no sense.

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PD980061</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 99/ 06478</b>	International filing date (day/month/year) <b>03/09/1999</b>	(Earliest) Priority Date (day/month/year) <b>10/09/1998</b>
Applicant <b>DEUTSCHE THOMSON-BRANDT GMBH et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

### 4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

### 5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

1



None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 99/06478

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N5/50

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 21877 A (HYUNDAI ELECTRONICS AMERICA) 22 May 1998 (1998-05-22)	1, 2, 4-6, 8-12, 19-21
A	page 6, line 12 - line 34 page 7, line 10 - line 17 page 8, line 12 - page 12, line 5; figures 2, 3, 5	3, 7, 13-16
A	DE 44 17 634 A (GOLD STAR CO) 24 November 1994 (1994-11-24) abstract	1, 20, 21
A	US 5 323 240 A (AMANO TOSHIO ET AL) 21 June 1994 (1994-06-21) the whole document	1, 20, 21
	-/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

30 November 1999

Date of mailing of the international search report

12/01/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Yvonnet, J

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 99/06478

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11, 30 September 1998 (1998-09-30) & JP 10 164447 A (MATSUSHITA ELECTRIC IND CO LTD), 19 June 1998 (1998-06-19) abstract ---	1, 20, 21
P, X	DATABASE WPI Derwent Publications Ltd., London, GB; AN 1999-504998 XP002124309 & JP 11 220673 A (NEC), 10 August 1998 (1998-08-10) abstract -----	1, 20, 21

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 99/06478

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9821877 A	22-05-1998	US 5801747 A AU 7182598 A	01-09-1998 03-06-1998
DE 4417634 A	24-11-1994	KR 9514578 B JP 7050788 A	08-12-1995 21-02-1995
US 5323240 A	21-06-1994	JP 5227494 A US 5564088 A US 5697077 A	03-09-1993 08-10-1996 09-12-1997
JP 10164447 A	19-06-1998	NONE	
JP 11220673 A	10-08-1999	JP 2880988 B	12-04-1999

## Patent Abstracts of Japan

PUBLICATION NUMBER : 10164447  
PUBLICATION DATE : 19-06-98

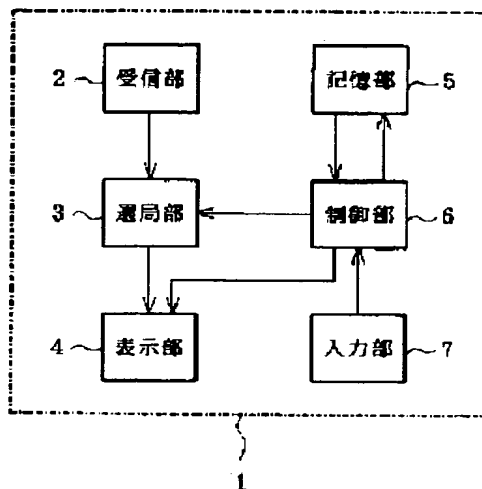
APPLICATION DATE : 25-11-96  
APPLICATION NUMBER : 08313984

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : NAGAYASU MASARU;

INT.CL. : H04N 5/44 G06F 3/02 G06F 3/14  
H03J 5/02 H04N 5/445

TITLE : BROADCAST RECEIVER



**ABSTRACT :** PROBLEM TO BE SOLVED: To provide the broadcast receiver by which a registration operation of a channel in multi-channel broadcast is facilitated, and the selective operation of the channel is facilitated by displaying automatically channel registration process and deleting automatically the channel with a low frequency of selection.

**SOLUTION:** When a channel not registered in a storage section 5 is continuously selected for 20min or longer, a control section 6 controls a display section 4 for displaying a procedure of registering the channel being selected to the storage section 5, and the display section 4 displays a message recommending channel registration onto a display menu. Furthermore, when the number of maximum registration channels capable of being stored in the storage section is exceeded by registration of a new channel in response to a channel registration instruction, the control section 6 controls the storage section 5 to delete a channel, whose frequency of selection is lower among channels having a already been registered and to store the new channel.

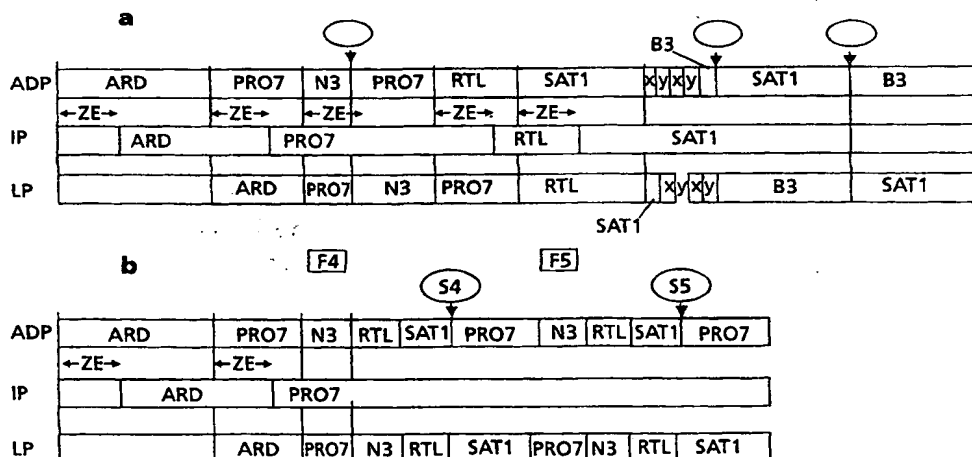
COPYRIGHT: (C) JPO





## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup>:</b> <b>H04N 5/50</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 00/16549</b>  <b>(43) International Publication Date:</b> 23 March 2000 (23.03.00)
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <b>(21) International Application Number:</b> PCT/EP99/06478  <b>(22) International Filing Date:</b> 3 September 1999 (03.09.99)   <b>(30) Priority Data:</b>            198 41 298.3      10 September 1998 (10.09.98)      DE   <b>(71) Applicant (for all designated States except US):</b> DEUTSCHE THOMSON-BRANDT GMBH [DE/DE]; Hermann-Schwer-Str. 3, D-78048 Villingen-Schwenningen (DE).   <b>(72) Inventor; and</b>  <b>(75) Inventor/Applicant (for US only):</b> MABON, Jean-Bernard [FR/DE]; Am Lorettowäldchen 23, D-78050 Villingen-Schwenningen (DE).   <b>(74) Agent:</b> ROSSMANITH, Manfred; Deutsche Thomson-Brandt GmbH, Licensing &amp; Intellectual Property, Karl-Wiechert-Allee 74, D-30625 Hannover (DE).         </div> <div style="width: 48%; vertical-align: top;"> <b>(81) Designated States:</b> AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).   <b>Published</b>  <i>With international search report.</i>  <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> </div> </div>		

**(54) Title:** METHOD FOR STORAGE OF A CHANNEL FOR A CONSUMER ELECTRONICS APPLIANCE**(57) Abstract**

In consumer electronics appliances, for example in the case of a television set, it is known for there to be a key on the remote control which allows the user to switch over to the previously selected channel. However, a disadvantage of this conventional solution is that, once the user has jumped from one channel to the next, which is called zapping, the television recognizes only the last channel in the zapping sequence as the last channel in each case. The invention is based on the object of providing an improved method for storage of a channel. The method according to the invention for storage of a channel in a consumer electronics appliance which can be switched over between different channels is distinguished in that the reception duration of the current channel is determined, and in that, as soon as the reception duration exceeds a predetermined time interval ZE, the channel is stored as a channel of interest.

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

# INTERNATIONAL SEARCH REPORT

Inte .c Application No

PCT/EP 99/06478

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N5/50

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 21877 A (HYUNDAI ELECTRONICS AMERICA) 22 May 1998 (1998-05-22)	1,2,4-6, 8-12, 19-21
A	page 6, line 12 - line 34  page 7, line 10 - line 17 page 8, line 12 -page 12, line 5; figures 2,3,5	3,7, 13-16
A	DE 44 17 634 A (GOLD STAR CO) 24 November 1994 (1994-11-24) abstract	1,20,21
A	US 5 323 240 A (AMANO TOSHIO ET AL) 21 June 1994 (1994-06-21) the whole document	1,20,21
	--- -/-- ---	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

30 November 1999

Date of mailing of the international search report

12/01/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Yvonnet, J

# INTERNATIONAL SEARCH REPORT

Inte o. application No  
PCT/EP 99/06478

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11, 30 September 1998 (1998-09-30) & JP 10 164447 A (MATSUSHITA ELECTRIC IND CO LTD), 19 June 1998 (1998-06-19) abstract ---	1, 20, 21
P, X	DATABASE WPI Derwent Publications Ltd., London, GB; AN 1999-504998 XP002124309 & JP 11 220673 A (NEC), 10 August 1998 (1998-08-10) abstract -----	1, 20, 21

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 99/06478

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9821877 A	22-05-1998	US 5801747 A AU 7182598 A	01-09-1998 03-06-1998
DE 4417634 A	24-11-1994	KR 9514578 B JP 7050788 A	08-12-1995 21-02-1995
US 5323240 A	21-06-1994	JP 5227494 A US 5564088 A US 5697077 A	03-09-1993 08-10-1996 09-12-1997
JP 10164447 A	19-06-1998	NONE	
JP 11220673 A	10-08-1999	JP 2880988 B	12-04-1999

CORRECTED  
VERSION\*

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> :

H04N

A2

(11) International Publication Number:

WO 98/21877

(43) International Publication Date:

22 May 1998 (22.05.98)

(21) International Application Number: PCT/US97/20995

(22) International Filing Date: 14 November 1997 (14.11.97)

(30) Priority Data:

08/751,537

15 November 1996 (15.11.96)

US

(71) Applicant: HYUNDAI ELECTRONICS AMERICA [US/US];  
3101 North First Street, San Jose, CA 95134 (US).

(72) Inventor: BEDARD, Karen; 2275 Glenkirk Drive, San Jose,  
CA 95124 (US).

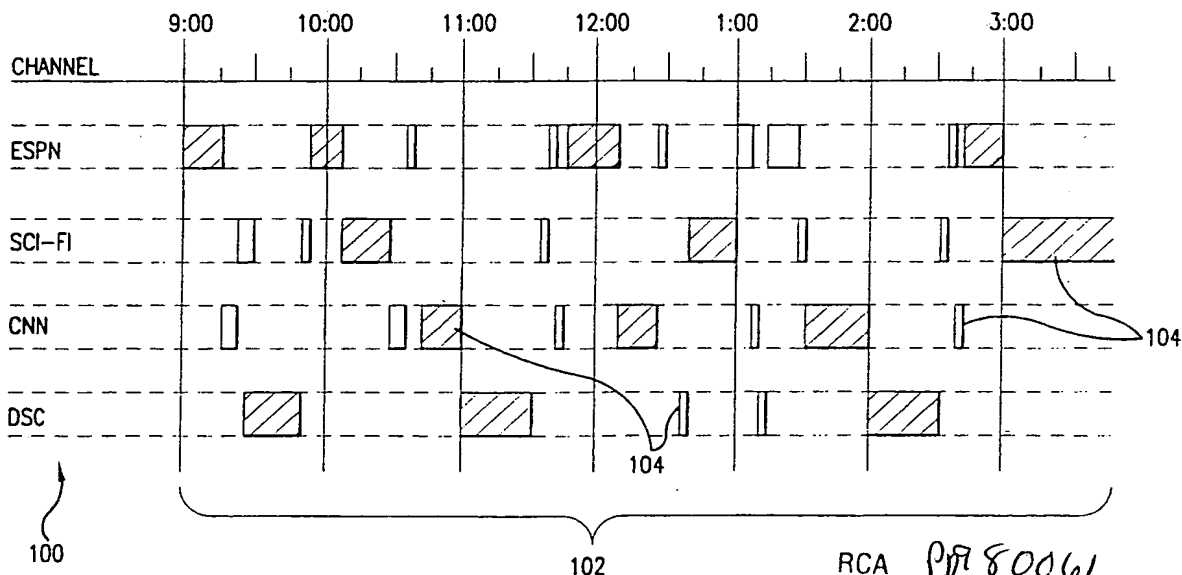
(74) Agents: STARK, Jon, R. et al.; Pennie & Edmonds LLP, 1155  
Avenue of the Americas, New York, NY 10036 (US).

(81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published

Without international search report and to be republished upon receipt of that report.

(54) Title: METHOD AND APPARATUS FOR CREATING A TELEVISION VIEWER PROFILE



(57) Abstract

A method and apparatus are disclosed for monitoring television viewing activity to determine preferred categories of programming and preferred channels of a viewer. To facilitate viewer access to preferred programming, the display of an electronic program guide may be configured in accordance with the monitored viewing activity to provide fast access to the preferred programming. The monitored viewing activity may also be used to provide a lock-out feature to prevent or limit the viewing of specified channels or categories of programming, or to identify and provide information of interest from the internet. In yet another embodiment of the invention, a viewer may automatically circulate through his or her preferred programming, as determined by monitoring the viewing activity of that viewer.

CITED BY APPLICANT

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						